



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,155	10/01/2003	Hui-Chuan Hung	67,200-1114	8165
7590 12/23/2005			EXAMINER	
TUNG & ASSOCIATES			NGUYEN, JIMMY	
Suite 120			ART UNIT	
838 W. Long Lake Road			PAPER NUMBER	
Bloomfield Hills, MI 48302			2829	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8/5

Office Action Summary	Application No. 10/677,155	Applicant(s) HUNG, HUI-CHUAN	
	Examiner Jimmy Nguyen	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 - 20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Argument

The examiner acknowledges the amendment 10/27/05 with the following effect; The applicant argues that the Ishii et al are fail to disclose positioning of the electrical probe tip as applicants have disclosed and claimed " to electrically stress a portion of microelectronic product other than an electrical contact portion of the microelectronic product ". The examiner is respectfully traversed this argument. When the probe needle 45 contact the device under test pad, it is bias the device under test at the same time it is going to apply a contact force on the contact pad which is result in deform or change it shape of the pads (this is stress situation according to encyclopedia dictionary). Further, the device under test (20) has the capable of transmitting the optical signal to the tester 103 to analyze, therefore this is the optoelectronic product.

As explained in detail above, the amendments do not render the claims distinct and patentable over prior art; nor do the amendments overcome the rejection. The applicant's arguments have considered in full, but they are deemed to be unpersuasive and without merit. Therefore, this final rejection is made.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2829

2. Claims 1 – 6, 8 – 13, 15 – 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishii et al (US 5,493,236).

As to claim 1, Ishii et al disclose (fig 1) an apparatus for electrically testing a Microelectronic product comprising:

an electrical test head (40b) to which is mated a microelectronic product (20) for electrically testing the microelectronic product (20); and

movable electrical probe tip (45) positioned with respect to the electrical test head (40b) such as to electrically stress a portion (column 6 lines 56 – 67 and column 7 lines 1 - 31) the microelectronic product (20) other than an electrical contact portion of the microelectronic product (20).

As to claims 2 - 4, 10, 11, Ishii et al disclose (fig 1) an apparatus of claim 1 wherein the microelectronic product (20) is semiconductor product, ceramic substrate and optoelectronic product.

As to claims 9, 16, Ishii et al disclose (fig 1) an method for electrically testing a microelectronic product comprising:

an electrical test head (40b) to which is mated a microelectronic product (20) for electrically testing the microelectronic product (20); and

movable electrical probe tip (45) positioned with respect to the electrical test head (40b) such as to electrically stress a portion (column 6 lines 56 – 67 and column 7

lines 1 - 31) the microelectronic product (20) other than an electrical contact portion of the microelectronic product (20)

sequentially movably positioning the electrical probe tip (45) and electrically biasing the microelectronic product while simultaneously electrically testing the microelectronic product (20).

As to claims 5, 12, 17, Ishii et al disclose (fig 1) the controller (61) which: controls electrical probe tip (45) positioning and biasing (column 6 lines 56 – 67 and column 7 lines 1 - 31) with respect to the portion of the microelectronic product (20) other than the electrical contact portion of the microelectronic product; and simultaneously collects corresponding electrical test data from the microelectronic product (20).

As to claims 6, 13, 18, Ishii et al disclose (fig 1) the radiation beam source (31) positioned with respect to the electrical probe tip (45) such as to simultaneously radiation stress the portion (column 7 lines 32 – 49) of the microelectronic product (20) other than the electrical contact portion of the microelectronic product.

As to claims 8, 15, 20, Ishii et al disclose (fig 1) the apparatus wherein the electrical probe tip (45) and the radiation beam source (31) are on the opposite side of the microelectronic product (20). (column 2 lines 52 – 55).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 14, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii et al (US 5,493,236) in view of Ohno et al (US 5,091,692).

As to claims 7, 14, 19, Ishii et al disclose (fig 1) everything except for the apparatus wherein the electrical probe tip and the radiation beam source are on the same side of the microelectronic product.

On the other hand, Ono et al teach (fig 3) the apparatus wherein the electrical probe tip (7) and the radiation beam source (40) are on the same side of the microelectronic product (2).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the testing system with light source on the same side of the semiconductor device for the purpose of simulate the signal to devices in front surface of the dut.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is 571 –272-1965. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor, can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN.
Dec 18, 2005


VINH NGUYEN
PRIMARY EXAMINER
A.U. 2829
12/20/05